

Amendments to the Claims

Please amend claim 1 and add new claims 8-20 such that the pending claims will read as follows:

1. (Currently Amended) A method for use during manufacture of a flat-panel display from a glass substrate comprising:

providing a vacuum processing system having:

a transfer chamber adapted to transfer the substrate under vacuum conditions, the transfer chamber having a sidewall with a plurality of facets formed therein;

a domed lid mounted on the transfer chamber and adapted to form an airtight seal with the transfer chamber;

at least a first process chamber coupled to the transfer chamber via a first of the plurality of facets, wherein the first facet is adapted to provide access to and isolation between the transfer chamber and the first process chamber; and

at least a first load lock chamber coupled to the transfer chamber via a second one of the plurality of facets, wherein the second facet provides access to and isolation between the transfer chamber and the first load lock chamber; and

employing the vacuum processing system during manufacture of a flat-panel display from the substrate.

2. (Original) The method of claim 1 wherein employing the vacuum processing system during manufacture of a flat-panel display includes:

loading the substrate into the first load lock chamber;

reducing the pressure in the first load lock chamber to substantially match a pressure in the transfer chamber; and

transferring the substrate from the load lock chamber to the first processing chamber.

3. (Original) The method of claim 2 further comprising cooling the substrate in the transfer chamber.

4. (Original) The method of claim 1 further comprising viewing the substrate via one or more windows formed within the domed lid.

5. (Original) The method of claim 4 wherein the one or more windows are oriented perpendicularly relative to the substrate.

6. (Original) The method of claim 1 further comprising:
coupling a sensor internally on the lid; and
employing the sensor to determine a position of the substrate within the transfer chamber.

7. (Original) The method of claim 6 further comprising correcting the position of the substrate.

8. (New) The method of claim 1 wherein the domed lid mounted on the transfer chamber protrudes toward the chamber.

9. (New) The method of claim 1 wherein the domed lid mounted on the transfer chamber protrudes away from the chamber.

10. (New) The method of claim 1 wherein the domed lid mounted on the transfer chamber includes a structural region providing sacrificial compliance to absorb distortion.

11. (New) The method of claim 10 wherein the structural region providing sacrificial compliance is an "S" transition.

12. (New) The method of claim 1 wherein the vacuum processing system further comprises a substrate cooling system coupled to the domed lid and adapted to cool a substrate during processing.

13. (New) The method of claim 1 wherein the vacuum processing system further comprises a sensor adapted to determine the position of a substrate on a substrate support.

14. (New) The method of claim 1 wherein employing the vacuum processing system during manufacture of a flat-panel display includes:

- loading the substrate into the first process chamber;
- reducing the pressure in the first process chamber to substantially match a pressure in the transfer chamber; and
- transferring the substrate from the process chamber to the transfer chamber.

15. (New) The method of claim 4 wherein viewing the substrate includes using a diagnostic device to view the substrate via one or more windows formed symmetrically within the domed lid.
16. (New) A method of forming a domed lid for a transfer chamber comprising:
forming a structural region for providing sacrificial compliance to absorb distortion; and
forming a domed region.
17. (New) The method of claim 16 wherein forming a domed lid further comprises forming the domed lid from stainless steel.
18. (New) The method of claim 16 wherein the structural region is formed by at least one of roll forming and spinning.
19. (New) A method for use during manufacture of a flat-panel display from a glass substrate comprising:
providing a vacuum processing system having:
a transfer chamber adapted to transfer the substrate under vacuum conditions, the transfer chamber having a sidewall with a plurality of facets formed therein;
a domed lid mounted on the transfer chamber, adapted to form an airtight seal with the transfer chamber, and including at least one of windows, diagnostic devices, processing devices, and manufacturing devices, symmetrically disposed and evenly distributed in the domed lid;

at least a first process chamber coupled to the transfer chamber via a first of the plurality of facets, wherein the first facet is adapted to provide access to and isolation between the transfer chamber and the first process chamber; and

at least a first load lock chamber coupled to the transfer chamber via a second one of the plurality of facets, wherein the second facet provides access to and isolation between the transfer chamber and the first load lock chamber; and

employing the vacuum processing system during manufacture of a flat-panel display from the substrate.

20. (New) The method of claim 19 wherein the manufacturing devices include substrate center finders.